

## AMENDMENTS TO THE CLAIMS

Please amend claims 1-25 as shown in the LISTING OF CLAIMS below. Please add new claims 26-42 as shown in the LISTING OF CLAIMS. The LISTING OF CLAIMS will replace all prior versions, and listings, of claims in the present application.

### LISTING OF CLAIMS

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1. (Currently Amended) A method for rendering DVD subpicture data on a computer system having graphics data without a loss of subpicture resolution, said method comprising including:

- inserting a key into the [[said]] subpicture data to indicate that the [[said]] data is subpicture information and not the graphics data;
- writing the [[said]] subpicture data to a primary surface, the [[said]] primary surface also receiving the [[said]] graphics data;
- reading data out of the [[said]] primary surface;
- determining if the [[said]] data read out of the [[said]] primary surface is subpicture data or graphics data by looking for the [[said]] key in said data;
- converting the [[said]] subpicture data to an RGB value and an alpha value and blending the [[said]] RGB value with DVD video data according to the [[said]] alpha value if the [[said]] data is subpicture data; and
- combining the [[said]] graphics data with the [[said]] DVD video data if the [[said]] data is graphics data.

2. (Currently Amended) The method in accordance with [[of]] claim 1, wherein the [[said]] primary surface is in 24-bit RGB mode.

3. (Currently Amended) The method in accordance with [[of]] claim 2, wherein the [[said]] subpicture data has 8 bits.

4. (Currently Amended) The method in accordance with [[of]] claim 3, wherein said inserting comprises: includes

inserting a 16-bit key into the [[said]] subpicture data to indicate that the [[said]] data is subpicture information and not the graphics data.

5. (Currently Amended) The method in accordance with [[of]] claim 4, wherein the [[said]] 16-bit key is inserted into bits spread evenly among said 24 bits.

6. (Currently Amended) The method in accordance with [[of]] claim 2, wherein said determining comprises include

examining 16 bits of the [[said]] data and comparing the [[said]] 16 bits with a 16-bit ~~16-bit~~ combination reserved to indicate subpicture data.

7. (Currently Amended) The method in accordance with [[of]] claim 1, wherein the [[said]] primary surface is in 16-bit 565 RGB mode.

8. (Currently Amended) The method in accordance with [[of]] claim 7, wherein the [[said]] subpicture data has 8 bits.

9. (Currently Amended) The method in accordance with [[of]] claim 8, wherein said inserting comprises: includes

inserting an 8-bit key into the [[said]] subpicture data to indicate that the [[said]] data is subpicture information and not the graphics data.

10. (Currently Amended) The method in accordance with [[of]] claim 9, wherein the [[said]] 8-bit key is inserted into bits spread evenly among the [[said]] 16 bits.

11. (Currently Amended) The method in accordance with [[of]] claim 9, wherein said determining comprises: includes

examining 8 bits of the [[said]] data and comparing the [[said]] 8 bits with an 8-bit ~~a 8-bit~~ combination reserved to indicate subpicture data.

12. (Currently Amended) The method in accordance with [[of]] claim 1, wherein the [[said]] primary surface is in 16-bit 555 RGB mode, wherein the [[said]] 16-bit 555 RGB mode provides 5 bits for red information, 5 bits for green information, 5 bits for blue information, and 1 empty bit.

13. (Currently Amended) The method in accordance with [[of]] claim 12, wherein the [[said]] subpicture data has 8 bits.

14. (Currently Amended) The method in accordance with [[of]] claim 13, wherein said inserting comprises: includes

inserting a [[an]] 1-bit key into the empty bit of the [[said]] subpicture data to indicate that the [[said]] data is subpicture information and not the graphics data.

15. (Currently Amended) The method in accordance with [[of]] claim 12, wherein said determining comprises: includes

examining 1 bit of the [[said]] data and comparing the [[said]] 1 bit with a 1-bit [[1 bit]] combination reserved to indicate subpicture data.

16. (Currently Amended) The method in accordance with [[of]] claim 1, wherein said combining comprises: includes

creating an alpha value based on whether the [[said]] graphics data represents a color set aside as a key color and combining the [[said]] graphics data and the [[said]] DVD video data according to the [[said]] alpha value.

17. (Currently Amended) A method for rendering DVD subpicture data on a computer system having graphics data without a loss of subpicture resolution, said method comprising including:

inserting a key into the [[said]] subpicture data to indicate that the [[said]] data is subpicture information and not the graphics data; and

writing the [[said]] subpicture data to a primary surface, the [[said]] primary surface also receiving the [[said]] graphics data.

18. (Currently Amended) A DVD subpicture data renderer comprising including:

a memory having a primary surface and a video surface;

a key inserter;

a subpicture data writer coupled to said key inserter and coupled to said primary surface;

a primary surface reader coupled to said primary surface;

a subpicture key select block coupled to said primary surface reader;

a subpicture detector coupled to said subpicture key select block;

an index select block coupled to said primary surface reader;

a subpicture palette coupled to said index select block;

an alpha select block coupled to said primary surface reader;

a multiplexor having a plurality of inputs and an output, one of said inputs coupled to said alpha select block and another of said inputs coupled to said subpicture detector;

a video surface reader coupled to said video surface; and

an alpha blender coupled to said subpicture palette, said multiplexor, and said video surface reader.

19. (Currently Amended) The DVD subpicture data renderer in accordance with [[of]] claim 18, further comprising including

a color and chroma key detect block coupled to said primary surface reader, said video surface reader, and said alpha blender.

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20. (Currently Amended) The DVD subpicture data renderer in accordance with [[of]] claim 18, wherein said primary surface reader is contained in a graphics engine on a graphics chip.

21. (Currently Amended) The DVD subpicture data renderer in accordance with [[of]] claim 18, wherein said video surface reader is contained in a video engine on a graphics chip.

22. (Currently Amended) A DVD subpicture data renderer comprising including:  
a memory having a primary surface and a video surface, the primary surface being adapted to receive subpicture data and graphics data;

a key inserter adapted to insert a key indicating that data is subpicture data and not the graphics data; and

a subpicture data writer coupled to said key inserter and coupled to said primary surface.

23. (Currently Amended) The [[A]] DVD subpicture data renderer in accordance with claim 22, further comprising including:

a primary surface reader coupled to said primary surface; and

a subpicture key select block coupled to said primary surface reader

~~a memory having a primary surface and a video surface;~~

~~a key inserter; and~~

~~a subpicture data writer coupled to said key inserter and coupled to said primary surface.~~

24. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for rendering DVD subpicture data on a computer system having graphics data without a loss of subpicture resolution, said [[the]] method comprising including:

inserting a key into the [[said]] subpicture data to indicate that the [[said]] data is subpicture information and not the graphics data;

writing the [[said]] subpicture data to a primary surface, the [[said]] primary surface also receiving the [[said]] graphics data;

reading data out of the [[said]] primary surface;

determining if the [[said]] data read out of the [[said]] primary surface is subpicture data or graphics data by looking for the [[said]] key in said data;

converting the [[said]] subpicture data to an RGB value and an alpha value and blending the [[said]] RGB value with DVD video data according to the [[said]] alpha value if the [[said]] data is subpicture data; and

combining the [[said]] graphics data with said DVD video data if the [[said]] data is graphics data.

25. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for rendering DVD subpicture data on a computer system having graphics data without a loss of subpicture resolution, said ~~[[the]]~~ method comprising ~~including~~:

inserting a key into said subpicture data to indicate that the ~~[[said]]~~ data is subpicture information and not the graphics data; and

writing the ~~[[said]]~~ subpicture data to a primary surface, the ~~[[said]]~~ primary surface also receiving the ~~[[said]]~~ graphics data.

26. (New) An apparatus for rendering DVD subpicture data on a computer system having graphics data without a loss of subpicture resolution, said apparatus comprising:

means for inserting a key into the subpicture data to indicate that the data is subpicture information and not the graphics data; and

means for writing the subpicture data to a primary surface, the primary surface also receiving the graphics data.

27. (New) The apparatus in accordance with claim 26, further comprising:

means for reading data out of the primary surface;

means for determining if the data read out of the primary surface is subpicture data or graphics data by looking for the key in said data;

means for converting the subpicture data to an RGB value and an alpha value and blending the RGB value with DVD video data according to the alpha value if the data is subpicture data; and



means for combining the graphics data with the DVD video data if the data is graphics data.

28. (New) The apparatus in accordance with claim 26, wherein the primary surface is in 24-bit RGB mode.

29. (New) The apparatus in accordance with claim 28, wherein the subpicture data has 8 bits.

30. (New) The apparatus in accordance with claim 29, wherein said means for inserting comprises:

means for inserting a 16-bit key into the subpicture data to indicate that the data is subpicture information and not the graphics data.

31. (New) The apparatus in accordance with claim 30, wherein the 16-bit key is inserted into bits spread evenly among said 24 bits.

32. (New) The apparatus in accordance with claim 28, wherein said means for determining comprises:

means for examining 16 bits of the data and comparing the 16 bits with a 16-bit combination reserved to indicate subpicture data.

33. (New) The apparatus in accordance with claim 26, wherein the primary surface is in 16-bit 565 RGB mode.

34. (New) The apparatus in accordance with claim 33, wherein the subpicture data has 8 bits.

35. (New) The apparatus in accordance with claim 34, wherein said means for inserting comprises:

means for inserting an 8-bit key into the subpicture data to indicate that the data is subpicture information and not the graphics data.

36. (New) The apparatus in accordance with claim 35, wherein the 8-bit key is inserted into bits spread evenly among the 16 bits.

37. (New) The apparatus in accordance with claim 35, wherein said means for determining comprises:

means for determining 8 bits of the data and comparing the 8 bits with an 8-bit combination reserved to indicate subpicture data.

38. (New) The apparatus in accordance with claim 26, wherein the primary surface is in 16-bit 555 RGB mode, wherein the 16-bit 555 RGB mode provides 5 bits for red information, 5 bits for green information, 5 bits for blue information, and 1 empty bit.

39. (New) The apparatus in accordance with claim 38, wherein the subpicture data has 8 bits.

40. (New) The apparatus in accordance with claim 39, wherein said means for inserting comprises:

means for inserting a 1-bit key into the empty bit of the subpicture data to indicate that the data is subpicture information and not the graphics data.

41. (New) The apparatus in accordance with claim 38, wherein said means for determining comprises:

means for examining 1 bit of the data and comparing the 1 bit with a 1-bit combination reserved to indicate subpicture data.

42. (New) The apparatus in accordance with claim 26, wherein said means for combining comprises:

means for creating an alpha value based on whether the graphics data represents a color set aside as a key color and combining the graphics data and the DVD video data according to the alpha value.